

REMARKS

Currently pending in this application are claims 1-8, 10-19, and new claims 20 and 21.

Obviousness Type Double Patenting

Applicant has reviewed the Examiner's comments concerning double patenting and will, upon receipt of a notice of allowance, present a timely filed terminal disclaimer if deemed necessary.

Obviousness

Applicant notes the Examiner's rejection of claims 1-8, 10-14, and 16-19 as obvious in view of the teachings of Grantges and Remers, under 35 U.S.C. 103(a) of the Patent Act.

Cited Prior Art

U.S. Patent Number 6,324,648 Grantges

U.S. Patent Number 6,742,039 Remer

Arguments in Support of Non-obviousness

Applicant has reviewed the cited reference of Remers and does not agree with the Examiner's interpretation of Remers' teachings (nor the combination of Grantges and Remers teachings) in view of Applicant's claimed invention.

Remers

Applicant submits that in general, Remers teaches a system and method for connecting to an entity behind a firewall via a trusted arbitrator that is located externally to the firewall. Remers describes the trusted arbitrator as an intermediary between (1) a local area network (LAN) protected by an access control mechanism such as the firewall and (2) external entities (e.g. remote computer 20c) *seeking to connect (emphasis added)* with an entity (e.g. computer 10a) within the LAN. *Requests (emphasis added)* from the external entities are routed to the trusted arbitrator, which communicates with a connection entity also located behind the firewall. The remote computer 20c is

connected to a network such as the Internet 250, which is coupled to the LAN via the firewall. Further, Remers teaches that the trusted arbitrator has a queue for storing received communication *requests* (*emphasis added*) to contact the computer 10a, such that if the trusted arbitrator determines that it has received a valid *request* from the remote computer, then the trusted arbitrator organizes the *request* for forwarding to the connection entity 10b.

Further, Applicant submits the teachings of Remers describe the connection entity as regularly polling the trusted arbitrator to determine whether any *requests* directed to computers within the LAN are currently stored. The connection entity polls the trusted arbitrator by sending a HTTP query to the trusted arbitrator's website. If no response indicating the presence of *requests* is received, connection entity waits for a predetermined delay period before polling the trusted arbitrator again. As emphasized above, Applicant strongly believes that there is no predefined association between the local 10a and remote 20c computers, and instead their intercommunication is to be explicitly and implicitly considered as simply a directed communication between two previously unrelated computers.

Discussion of Remers & Grantges

In view of the above described system, Applicant submits that Remers' system is directed to the situation of "As shown in FIG. 1, HTTP is a query/response protocol in which an entity such as a client 30 directs a *query for information* to a specific resource (such as a file or web page, as identified by a Universal Resource Locator or URL) and another entity such as a server 40 forwards an appropriate response associated with that resource.", *emphasis added*. Accordingly, Applicant submit that Remers is similar to the teachings of Grantges in that remote computers located outside of a firewall seek to obtain information from local computers located inside of a firewall. It should be noted by the Examiner that for both Remers and Grantges, only *communication requests* are directed to local computers and that in turn "*response*" information is sent from the local computers to the remote computers as a result of the received "request(s)". This described request/response methodology is contrary to the use of a remote network resource (e.g. network printer) by a network terminal for the invention

as claimed, whereby "printing data" is stored in a queue such that "the printing data being associated with the network printer, the network printer being assigned as a network resource associated the network terminal". Applicant submits that neither Grantges nor Remers teach directly nor indirectly a network printer assigned as a remote resource associated with the network terminal (e.g. via a user of terminal). This feature is clearly identified in at least previously submitted claim 8 (i.e. "the datasource is a network terminal configured for communication with the network printer"). Applicant has amended claim 1 to better define the claimed invention as intended.

Claim 1. A secure network resource access system for facilitating access to a network printer located behind a firewall, the secure network resource access system comprising:

a proxy server located logically outside the firewall for receiving printing data from a data source located outside the firewall, the proxy server having a queue for storing the received printing data, the printing data being associated with the network printer and the network printer being associated as a network resource for the printing data of the data source; and

a polling server located logically behind the firewall, the polling server being configured for polling the proxy server to determine a status of the queue and to pull any received printing data across the firewall from the queue of the proxy server to the polling server.

In view of the above amended claim 1, Applicant provides a number of cited passages from Remers that clearly demonstrate that the computer 10a is not mentioned nor intended (either explicitly nor implicitly) as an assigned remote resource of the remote computer 20c, and that the network communication between the remote and local computers is intended as an externally (to the firewall) generated request followed by an internally (to the firewall) generated response directed back to the remote computer, i.e. "any response to the Incoming Information that is subsequently generated by the target device (In this case, local computer 10a) may be forwarded back to remote computer 20c". As discussed above, this method of network communication is contrary to the

invention as claimed. The following are cited Remer passages taken in order of operation as described by Remer:

- 1) "Connection entity 10b may initiate the identification process by selecting trusted arbitrator 20b as its intermediary for all requests directed to entities within LAN 230.";
- 2) "Thus, in order to request communication with an entity within LAN 230 such as local computer 10a, remote computer 20c transmits a request through a network such as the Internet 250 to trusted arbitrator 20b.";
- 3) "If trusted arbitrator 20b indicates that requests for devices within LAN 230 are currently present, then these requests are forwarded to connection entity 10b. In this implementation, for example, connection entity 10b sends a HTTP query to trusted arbitrator 20b (block P150) to open a HTTP pipe between the two entities.";
- 4) "connection entity 10b polls trusted arbitrator explicitly via a HTTP query (block P135). If the queue is empty, no response need be sent. If the queue contains pending requests for devices within LAN 230, then these requests are forwarded back to connection entity 10b immediately in a HTTP response to that query."; and
- 5) "As described above, a method or apparatus according to an embodiment of the invention allows *a secure connection* to be established with an entity outside a LAN, *emphasis added*".

Further, Applicant submits that Remers is also different from Applicant's claimed invention in that Applicant considers a certain flaw in the logic of the connection to Grantges. In particular, in Remers, column 4, lines 35-42, the use of polling by the connection entity is dependent on the activities of the "Trusted Arbitrator". The Trusted Arbitrator is aware of the source of the request (column 4, lines 24-29) and validates that it is acceptable to place in the queue. For example:

"Before remote computer 20c is permitted to communicate with an entity within LAN 230, trusted arbitrator 20b performs a certification process in order to establish the validity of the request sent by remote computer 20c. In one implementation, trusted arbitrator 20b certifies the request by verifying the identity

of remote computer 20c. By virtue of such a certification process, an Impostor may not assume the identity of remote computer 20c without running afoul of trusted arbitrator 20b. In another implementation, trusted arbitrator 20b assigns an authentication identity to remote computer 20c upon certification. In a further implementation, trusted arbitrator 20b certifies the request by verifying that remote computer 20c is capable of transmitting and receiving information in a secure manner. "

Further, Remers states that the queue is identified as being "in a secure area" within the website (column 4, lines 38-42). By that definition Applicant submits that Remers queue is located logically within the protected area of the website, which matches Remers own definition of a firewall. Hence, Applicant submits that the queue and the polling server of Remers are *logically* within the firewall, not outside as identified by the Examiner. Accordingly, the teaching of Remers simply moves the logical push, from inside the physically defined firewall, to the Trusted Arbitrator, which pushes the message through a logical firewall to the trusted area, containing the queue. The remote computer of these messages has to be validated for the Trusted Arbitrator to allow the remote computer to push the message into the queue. Nothing is mentioned by Remers as to any defined relationship between the remote and local computers. Further, Applicant does not understand the Examiner's assertion that Remers teaches anything about printing data.

Accordingly, in view of the above discussed claim amendments and supporting remarks, Applicant considers the Examiner's 103(a) rejection, in view of Grantges and Remers, is hereby overcome.

Accordingly, in view of the above presented claim amendments and supporting arguments, Applicant submits that document neither Remers nor Grantges, either alone

or in combination, anticipate nor render obviousness of the claims 1-8, 10-14, and 16-21 as presently worded.

Conclusion

It is believed that the above remarks and amendments submitted herein have placed this present application in condition for allowance, and a Notice thereof is requested. If the Examiner has further concerns, he is encouraged to contact Applicant's undersigned agent at (416) 862-4318. All correspondence should continue to be directed to listed address shown below.

Respectfully submitted,



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